

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Group Art Unit: 2172

Serial No.:

09/699,609

Examiner: A. Kindred

Filed:

October 30, 2000

Raymond Krasinski

Docket: US000284

For:

METHOD AND APPARATUS FOR COMPRESSING TEXTUAL

DOCUMENTS

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Submitted herewith please find an original and two copies of Appellant's Brief on Appeal. A check in the amount of \$330 is enclosed for the statutory fee under Rule 1.17(c).

Respectfully submitted,

Daniel E. Tierney Reg. No. 33,461

(631) 588-4429

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Daniel E. Tierney, Reg. No. 33,461

#13

PATENT

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Applicants: Raymond Krasinski

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APPEAL BRIEF

Technology Center 2100

Sir:

REAL PARTY IN INTEREST

The real party in interest is Philips Electronics North America Corporation, having an office at 345 Scarborough Rd., Briarcliff Manor, NY 10510.

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Daniel E. Tierney, Reg. No. 33,461

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RELATED APPEALS AND INTERFERENCES

To the best of Appellant's knowledge and belief, there are no related appeals or interferences.

STATUS OF CLAIMS

Of the original Claims 1-21 filed, Claims 1, 11 and 18-21 were amended by an Amendment mailed February 20, 2003. Thus, Claims 1-21 are pending in the Application.

STATUS OF AMENDMENTS

No amendments were filed subsequent to the final rejection mailed on June 26, 2003: The first Office Action of November 20, 2002 was responded to by the above-mentioned Amendment mailed February 20, 2003. The subsequent final Office Action was responded to without further amendment. Thus, the Appendix to this Appeal Brief includes independent Claims 1, 11 and 18-21 as amended by the February 20, 2003 Amendment, along with dependent Claims 2-10 and 12-17 as originally filed.

SUMMARY OF THE INVENTION

The invention relates to the compression of information, and more particularly, to the compression of textual documents encoded using tag-based markup languages. A document encoded according to such a tag-based markup language organizes textual data in a hierarchical structure. The encoded document is comprised of a number of data

elements, each having a corresponding tag element. The tag elements impose the hierarchical structure of the document on their respective data elements.

In the past, compression of such a textual document included compression of the tag and data elements. Such compression of a relatively large textual document allows, for example, faster transmission and reduced storage space. However, such compression is relatively inefficient and undesirable if only a specific portion of the compressed document is subsequently needed in an uncompressed state. In that case, the entire document (all data elements and tags) must first be decompressed in order to ascertain the hierarchical structure imposed by the tag elements, and then the desired portion (one or more data elements) of the document is identified.

Among other things, the current invention provides a solution to the above-noted disadvantages, comprising of compressing only the data elements in the document. The tag elements are maintained in an uncompressed state.

Thus, Claim 1 recites, among other things:

"A method of compressing a textual document comprised of data elements and tag elements that impose a hierarchical structure on said data elements, said method comprising the steps of:

compressing only said data elements in said document using a compression algorithm..."

Using the method recited in Claim 1 to compress a document provides a number of benefits. Even in the compressed state, the hierarchical structure of the data elements of the document can be determined via the tag elements, which are not compressed. Thus, data elements for a desired portion of the document may be selectively decompressed.

The entire document does not have to first be decompressed to ascertain the hierarchical structure imposed by the tag elements, thus saving time.

An example of such a language to which the above-described invention applies as described in the Application is the Extensible Markup Language (XML). The XML standard allows XML-enabled applications to inter-operate with other compliant systems for the exchange of encoded information. (Specification, p. 1, lines 24-26) XML documents store textual data in a hierarchical tree structure. (Id., lines 26-27) Each XML document has one root node, often referred to as the root element, with the other nodes in the hierarchical tree arranged as descendants of the root node. (Id., lines 27-30) Each XML document contains two types of elements, namely, data elements and the corresponding tag elements that impose the hierarchical structure on the data elements. (Id., lines 30-32)

The textual information of XML documents can cause the documents to be quite large in size. (Id., lines 33-34) In order to reduce the size of XML documents for transmission and storage, standard compression algorithms suitable for textual information were in the past applied to entire XML documents. (Id., p. 1 (line 34) to p. 2 (line 3)) However, as generally noted above, such a technique results in a number of limitations. In particular, the entire compressed XML document must be decompressed to be useful. (Id., p. 2, lines 8-10) In other words, the entire document must be decompressed in order to ascertain the hierarchical structure imposed by the tag elements. Thus, the entire document must be decompressed even if only a portion of the data elements are of interest.

As noted above, the current invention only compresses the data elements of a document comprised of data elements and tag elements, thereby leaving the tag elements uncompressed. (E.g., Id., p. 2, lines 16-29) In the exemplary case where the document is an XML document, only the data elements of the XML document are compressed. (E.g. Id., p. 4, lines 27-30) One of the advantages of this compression method is the (non-compressed) tag elements may be used to ascertain the hierarchical relationship of the data in the compressed state. Particular data elements for desired portions of the document may then be selectively decompressed without resorting to decompression of the entire XML document. (E.g., Id., p. 4 (line 33) to p. 5, (line 5))

In addition, if the format of the document were changed during compression, reading particular data elements in the original format would require both reformatting and decompression. Such an additional reformatting step would defeat the purpose of reducing the time needed to identify and decompress a desired portion of the document. Thus, Claim 1 also recites "wherein said document before and after the compressing step is in a given file format".

ISSUES

- 1) Whether each of Claims 1-6, 9-15 and 18-21 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 5,991,713 to Unger et al. ("Unger") in view of U.S. Patent No. 5,999,949 to Crandall ("Crandall") ¹.
- 2) Whether each of Claims 7-8 and 16-17 are unpatentable under 35 U.S.C. §103(a) over Unger in view of Crandall and further in view of U.S. Patent No. 6,175,820 B1 to Dietz ("Dietz").

GROUPING OF CLAIMS

- 1) For the rejection of Claims 1-6, 9-15 and 18-21 under 35 U.S.C. §103(a) over Unger in view of Crandall, Claims 1-6, 9-15 and 18-21 do not stand or fall together. Rather, the following are separately patentable groups of claims:
- (i) Claims 1, 2, 5, 6, 9-11, 14, 15 and 18-21 are a first separately patentable group.
 - (ii) Claims 3, 4, 12 and 13 are a second separately patentable group.
- 2) For the rejection of Claims 7, 8, 16 and 17 under 35 U.S.C. §103(a) over Unger in view of Crandall and further in view of Dietz, Claims 7, 8, 16 and 17 stand or fall together.

¹ The patent number cited for Crandall in paragraph 3 of the final Office Action has a typographical error. The correct number is as given above.

ARGUMENT

For the rejections of Claims 1-6, 9-15 and 18-21 over Unger in view of Crandall, Claims 1, 2, 5, 6, 9-11, 14, 15 and 18-21 stand or fall together and Claims 3, 4, 12 and 13 stand or fall together because Claims 3-4 and 12-13 are patentably distinct from Claims 1, 2, 5, 6, 9-11, 14, 15 and 18-21. Claims 3-4 and 12-13 each recite variations of inserting an identifier of the compression algorithm in a tag element of the document. These recitations in Claims 3-4 and 12-13 are not recited in Claims 1-2 and 11, from which they respectively depend, or in any of the other claims. The basis for the separate patentability of Claims 3-4 and 12-13 is discussed further in part 2 of the argument below.

- 1) Claims 1, 2, 5, 6, 9-11, 14, 15 and 18-21 are not unpatentable under 35 U.S.C. §103(a) over Unger in view of Crandall.
 - A) Claims 1, 2, 5, 6, 9-11, 14, 15 and 18-21 are not unpatentable under 35 U.S.C. §103(a) over Unger in view of Crandall when the wherein clause of the independent claims is properly interpreted to mean the "same" file format before and after compression.

Claim 1 is focused on as representative in the ensuing discussion. As discussed above, recitations in Claim 1 that are salient to the issues presented in this appeal include:

"compressing only said data elements in said document using a compression algorithm, wherein said document before and after the compressing step is in a given file format".

The wherein clause recitation of Claim 1 clearly means that the file format is the same

before and after the compressing step. (This is addressed further in part B below.)

Independent Claim 1 was said to be obvious over Unger in view of Crandall. (See, paragraph 3 of the final Office Action of June 26, 2003 ("final Office Action" hereinafter)) Among other things, the final Office Action states that Unger teaches "identifying said data elements in said document; compressing only said data elements in said document using a compression algorithm" and cites to Unger col. 8, lines 7-66. (Final Office Action, ¶3) However, the final Office Action acknowledges that "Unger et al. does not explicitly teach 'wherein said document before and after the compressing step is in a given file format" and cites to Unger col. 16, lines 3-28. (Final Office Action, ¶3) The final Office Action relies on Crandall for teaching the Claim 1 recitation of "wherein said document before and after the compressing step is in a given file format".

Appellant first focuses on the failure of Unger in view of Crandall to teach or suggest all of the elements recited in Claim 1. Unger is concerned with compression and compilation of multiple files. (See, e.g., Unger Figs. 7 and 8 and related text at col. 8; elements 20-28 of Fig. 7 are a plurality of HTML files that are compressed and compiled, see Unger, Fig. 3 and col. 4, lines 62-65) Unger teaches a system that takes

² The Examiner's citation in the final Office Action to Unger col. 16, lines 3-28, as support for this statement appears to be incorrect. See note 11 below.

³ The citation to Crandall for teaching the recitation "wherein said document before and after the compressing step is in a given file format" is clear although not explicitly stated in the final Office Action.

a file having a first file format, such as HTML, compresses textual data from the file, and results, after compilation, in a second file having a second file format. (Unger, Figs. 7 and 8 and col. 8 (lines 6-52); col. 11 (line 60) to col. 12 (line 11); element 52 of Fig. 7 represents the compiled file of Unger, which clearly has a different format than an HTML file) As noted, the final Office Action also acknowledges that Unger does not teach the Claim 1 recitation of "wherein said document before and after the compressing step is in a given file format".

As further noted above, Crandall is only relied upon for teaching a given format before and after compression. No particular portion of Crandall is cited by the Examiner, nor does the final Office Action state how the teachings of Unger and Crandall are "combined". (Final Office Action, ¶3 at p. 2) However, Unger already teaches compression of textual data before compilation. Without conceding any of the other issues pertaining to obviousness, combining Crandall's particular teachings regarding compression with Unger would not change Unger's *compilation*, which changes the format in the compressed state. In other words, modifying Unger in view of Crandall's teachings regarding compression would at most result in what is already disclosed in Unger alone: A system that takes a file having a first file format, such as

⁴ It generally appears that Crandall teaches compressing and decompressing a text file (such as an ASCII file) by creating a number of dictionary files and a word index, among other things. Crandall also refers to using its compression techniques for compressing only the text portions of an HTML document that includes non-textual material (graphics, photographs, drawings). (Crandall, cols. 16-17) Crandall does not mention separate elements (such as tag elements and data elements) of the text portion in its treatment of compressing the HTML document.

HTML, compresses textual data from the file (modified using Crandall's compression teachings), and results, after compilation, in a second file having a second file format.⁵ The second file format would still be analogous to that shown in Fig. 7 (ref. no. 52) of Unger.

Thus, Unger in view of Crandall still results in a file format that is different after compression, not the same. A principle disadvantage of Unger (or Unger as modified by Crandall, since it does not change Unger in this regard) is that, in addition to decompressing, an extra step of translating the document back to the first format is required before it is readable in the first file format. (E.g., Unger, col. 13 (line 66) to col. 14 (line 14)) Even the tags of Unger are altered in the second file format of Unger, and a correspondence table is created to preserve the relationship between the tags and corresponding text and objects. (Unger, Fig. 7 (element 54), Fig. 8 (element 222), col. 8 (lines 40-44) and col. 12 (lines 6-11))

By contrast, a document that is compressed in accordance with Claim 1 remains in the same format ("a given format") in the compressed state. Thus, the hierarchical structure of the document is immediately ascertainable (since tags are not compressed and are also not subjected to Unger-like alteration), and only decompression of a desired portion of the document is needed.

One of the elements of establishing a prima facie case of obviousness requires

⁵ As discussed further below, there can be no suggestion to substitute Crandall's compression for Unger's compression and compilation, since that would render Unger unsatisfactory for its intended purpose.

that the Examiner show that all of the recitations of a claim are taught in the prior art or are suggested by the prior art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974) cited in MPEP 2143.03. Without conceding any other issues pertaining to obviousness (such as the basis for combining references, or whether it would reasonably be successful), Unger in view of Crandall results in a different file format in the compressed state and thus fails to provide at least the Claim 1 recitation of "wherein said document before and after the compressing step is in a given file format".

Accordingly, the combination of Unger and Crandall fails to present a prima facie case of obviousness with respect to Claim 1.

In addition, another requirement of establishing a prima facie case of obviousness requires that the Examiner demonstrate a proper basis for combining or modifying reference teachings: there must be some teaching, suggestion, or motivation in the prior art, or in the knowledge generally available to one of ordinary skill in the art at the time the invention was made, to combine or modify the teachings of the prior art to produce the claimed invention. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), cited in MPEP 2143.01. Even supposing hypothetically (but not conceding) that the combination of Unger and Crandall did result in the Claim 1 recitation of "wherein said document before and after the compressing step is in a given file format", the rationale given for combining Unger and Crandall in the final Office Action is improper:

The final Office Action states that such a combination would have been obvious "because using the [Claim 1 recitation] of 'wherein said document before and after the compressing step is in a given file format', would have given those skilled in the art the tools to ability [sic] to process compressed and uncompress[ed] data regardless [of] the data format" and that "[t]his gives users the advantage of processing compressed/uncompressed data faster". ⁶ (Final Office Action, ¶3 at p. 2) Thus, the only rationale given in the Office Action for combining Unger and Crandall is that the Claim 1 recitation of "wherein said document before and after the compressing step is in a given file format" would have provided certain purported benefits. Merely stating that such benefits would have accrued does not provide a teaching, suggestion, or motivation found in the references themselves, or in the knowledge generally available to one of ordinary skill in the art at the time the claimed invention was made, for combining Unger and Crandall. ⁷

In fact, apart from not providing a proper rationale in the final Office Action, it is doubtful that one can be provided at all. In order to show the same file format before and after compression, Unger would at least have to be modified to eliminate its compilation. But modifying Unger to eliminate compilation would require changing a

⁶ Apart from not providing a proper rationale, the purported benefits as stated in the Office Action are also unclear.

⁷ That such benefits would have accrued to one skilled in the art, or to any one else, does not present a teaching, suggestion, or motivation found in the knowledge generally available to one skilled in the art to modify the reference or combine reference teaches.

fundamental aspect of Unger's operation. Unger's compilation of multiple hypertext documents is a central feature of its associating related hypertext documents. Indeed, Unger's treatment of compiling, processing and transmitting such a compiled file spans some 10 columns of the patent (cols. 8-17) and relates to some 8 figures (Figs. 7-14). Various apparatuses and systems are described which accommodate the particular file structure. Therefore, one of Unger's apparent objectives is to provide better handling of related hypertext documents through such a file structure. (One purported advantage of such a file structure as described by Unger is that a proxy may use the tag tree 54 of the compiled file 52 to request related material in the file 52 that was not received in an initial transmission from a remote server 12. (Unger, col. 15, lines 17-23)) Modifying Unger to eliminate its fundamental feature of compilation would undermine this intended purpose and is thus not suggested. In re Gordon, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984) cited in MPEP 2143.01 (no suggestion to modify where reference would be rendered inoperable for its intended purpose).

Accordingly, for at least these additional reasons, Unger in view of Crandall fails to present a prima facie case of obviousness with respect to Claim 1. For at least the above-noted reasons, the combination of Unger and Crandall fails to render Claim 1 unpatentable. In addition, independent Claims 11 and 18-21 contain analogous distinguishing recitation as discussed above for Claim 1 and are distinguished for like

reasons. Dependent Claims 2, 5, 6, 9-10, 14 and 15 are distinguished from Unger in view of Crandall by virtue of their dependencies on their respective independent claim.

B) The recitations in the "wherein" clause of independent Claims 1, 11 and 18-21 mean the same file format before and after the compressing step (or compression), and the claims were so interpreted by the Examiner.

The argument in part A above relies on the interpretation of the Claim 1 recitation "wherein said document before and after the compressing step is in a given file format" to be that the file format is the *same* before and after the compressing step. Such an interpretation is clearly correct. As discussed below, this proper interpretation stems from the plain meaning of the recitation.

This plain meaning also reflects the Examiner's understanding after its introduction, at least through issuance of the final Office Action. However, it is noted that the Advisory Action for the first time states that "Applicant's use of 'a given format', in the claim language, is interpreted as being any document with character [sic] in a given array, since 'a given format' is extremely broad". Although this statement is unclear, it appears that the Examiner may mean the Claim 1 recitation "wherein said document before and after the compressing step is in a given file format" could encompass different formats before and after compression.

If so, such a construction, given at the eleventh hour in the Advisory Action, fails to properly interpret the plain meaning of the wherein recitation: The Patent Office may give claims their broadest reasonable meaning when determining patentability. Any analysis of a claim begins with the plain meaning of the words of a claim. In re Zletz,

893 F.2d 319, 13 U.S.P.Q.2d 1320 (Fed. Cir. 1989) cited in MPEP 2111.01. The Claim 1 recitation "wherein said document before and after the compressing step is in a given file format" does not recite any special technical jargon and plainly means that the document is in the same format before and after compression. The claim recites "a ... format". Under normal claim interpretation, the use of "a" in conjunction with "format" in the singular form means that there is only one format introduced in the claim language. The document is in this one format both "before and after the compressing step". On its face, this cannot mean anything other than the file format is the same both before and after the compressing step. This interpretation is consistent with the specification. An interpretation that "wherein said document before and after the compressing step is in a given file format" could mean different file formats before and after the compressing step would thus be unreasonably broad.

The ensuing prosecution through issuance of the final Office Action and Appellant's Response Under 37 C.F.R. §1.116 evidences a mutual understanding between the Appellant and the Examiner of that plain meaning of the wherein clause. The salient portions are summarized below, so that the Board may determine that

⁸ Use of the term "a given format" does not change that only one format is introduced in the claim language: A common dictionary definition for "given" is "specified" or "fixed". See, e.g., The American Heritage College Dictionary, 3rd Ed. (1993, 1997) (excerpt attached).

⁹ Of course, after the compressing step the file is in the same format in a compressed state.

allowance of the claims is the appropriate ruling 10:

The plain meaning that the file format is the "same" both before and after the compressing step was unequivocally stated by Appellant when Claim 1 was amended: In the first Office Action of November 20, 2002, original Claim 1 was rejected as anticipated by Unger alone. In the Amendment of February 20, 2003, Claim 1 was then amended to include the wherein clause. In the Remarks section, it was noted that Unger failed to show the Claim 1 recitation of "wherein said document before and after the compressing step is in a given file format" and then flatly stated that "[t]he present invention has a tremendous advantage over the system of Unger in that a separate process is not required to ascertain the hierarchical structure of the data since the resultant document is in the same-file-format as the input document" (2/20/03 Amendment, p. 6, emphasis added). Thus, Appellant's statement unequivocally presented the plain meaning that the recitation is limited to the same-file-format before and after compression.

After Appellant amended Claim 1 and distinguished Unger based on Claim 1's resultant document having the same file format as the input document, the Examiner indicated agreement with that position in the final Office Action by stating that "Unger et al. does not explicitly teach 'wherein said document before and after the compressing

In other words, because the litigation standard of claim interpretation does not apply for the purposes of this appeal, Appellant does not present the prosecution history for interpreting the claim language. However, as indicated, the prosecution history is clearly in accordance with the plain meaning given above.

step is in a given file format". (Final Office Action, ¶ 3 at p. 2¹¹) In addition, the final Office Action provided the new ground for rejection of Claim 1 as obvious over Unger in view of Crandall (which forms the basis of this appeal) and maintained that Appellant's prior arguments were moot. (Final Office Action, (¶¶ 3 and 6)).

Therefore, the clear indication in the final Office Action was that the Examiner agreed that the wherein clause meant the same file format before and after compression, and Appellant's subsequent distinction of Unger in view of Crandall in the Response Under 37 C.F.R. §1.116 was clearly premised on this understanding. Any later suggestion made in the Advisory Action that the wherein clause of Claim 1 could encompass different file formats before and after compression thus conflicts with the interpretation evidenced in the final Office Action.¹²

¹¹ The Examiner's citation in the final Office Action to Unger col. 16, lines 3-28, as support for this statement appears to be incorrect. However, on its face the statement made by the Examiner was undisputed by Appellant: Appellant's had previously argued that Unger did not teach "wherein said document before and after the compressing step is in a given file format" because it did not teach the same file format before and after the compressing step.

¹² Had the Examiner opined that the recitation "wherein said document before and after the compressing step is in a given format" could encompass different formats, it would have been incumbent on the Examiner to articulate such a broader interpretation in the final Office Action. (37 C.F.R. §1.113(b)) In addition, if the Examiner had believed that the wherein clause could encompass different file formats when issuing the new rejection based on Unger in view of Crandall, then Appellant's prior position that the recitation was limited to the same file format (used to distinguish Unger in the 2/20/03 Amendment) would have remained relevant in the context of the new rejection. Thus, the Examiner would have again been required to address Appellant's prior argument, which would have included explaining the Examiner's broader interpretation. (MPEP 707.07(f), Examiner's Note to ¶7.38) More fundamentally, had the Examiner believed the wherein clause could encompass different formats, the new grounds of rejection would have been unnecessary in the final Office Action, since it was undisputed (and even argued) that Unger provided a different format after compression. (2/20/03 Amendment, p. 6)

Thus, as previously discussed, the plain meaning of the Claim 1 recitation of "wherein said document before and after the compressing step is in a given file format" is that the document is in the same file format before and after the compressing step, and the record indicates that it was so interpreted by the Examiner when issuing the final Office Action. Claims 11 and 18-21 have analogous wherein clauses as Claim 1 and their amendment and treatment through the final Office Action are analogous to Claim 1. Thus, the arguments given above regarding the plain meaning and the Examiner's understanding of the plain meaning apply equally to independent Claims 11 and 18-21. They also apply equally to dependent Claims 2, 5, 6, 9, 10, 14 and 15 by virtue of their dependencies on their respective independent claim.

C) Summary: Claims 1, 2, 5, 6, 9-11, 14, 15 and 18-21 should be allowed. As discussed in part B above, the plain meaning of the wherein clause of Claim 1 as properly interpreted means the document is in the same file format before and after the compressing step, with analogous interpretations for independent Claims 11 and 18-21 and dependent Claims 2, 5, 6, 9, 10, 14 and 15. The record indicates this proper interpretation was understood by the Examiner through issuance of the final Office Action. Accordingly, Claims 1, 2, 5, 6, 9-11, 14, 15 and 18-21 are patentably distinct from Unger in view of Crandall for the reasons given in part A above. Thus Claims 1, 2, 5, 6, 9-11, 14, 15 and 18-21 are allowable.

2) Claims 3, 4, 12 and 13 are not unpatentable under 35 U.S.C. §103(a) over Unger in view of Crandall.

Dependent Claims 3, 4, 12 and 13 were also rejected in paragraph 3 of the final Office Action as unpatentable over Unger in view Crandall.

In addition to the distinctions provided in part 1 above, dependent Claims 3-4 and 12-13 are separately patentable. Claim 3 recites the "step of inserting an identifier of said compression algorithm in said document inserts said identifier in a root node tag element", a limitation not found in Claims 1-2, from which it depends. An analogous distinction applies between Claim 12 and independent Claim 11. Claim 4 recites the "step of inserting an identifier of said compression algorithm in said document further comprises the steps of inserting a new tag element in said document and inserting said identifier in said new tag element", a limitation also not found in Claims 1-2, from which it depends. An analogous distinguishing recitation applies between Claim 13 and independent Claim 11.

Thus, each of Claims 3, 4, 12 and 13 further recites a variation of inserting an identifier of the compression algorithm in a tag element of the document. Each claim recognizes and exploits both the structure of the document being comprised of tag elements and data elements, as well as compressing only the data elements of the document and not compressing the tag elements. As a result, this allows the identifier of the compression algorithm to be integrated into the structure of the document itself that is compressed.

Unger, col. 6, lines 3-67 is cited in paragraph 3 of the final Office Action as

purportedly teaching the recitations of Claims 3-4 and 12-13. However, that portion of Unger deals with hyperbinding of hypertext documents and has no relation at all to the recitations in Claims 3-4 and 12-13.

Thus, for at least the above-noted reasons, the recitations provided in Claims 3-4 and 12-13 are separately patentably distinct from Unger in view of Crandall.

In addition, for the reasons presented in part 1 of the argument above for Claim 1, dependent Claims 3-4 are patentably distinct from Unger in view of Crandall by virtue of their dependency on independent Claim 1. Likewise, for the reasons presented in part 1 above for Claim 11, Claims 12-13 are patentably distinct from Unger in view of Crandall by virtue of their dependency on independent Claim 11.

Thus, for at least the reasons given in part 1 of the argument above, as well as for the separately patentable distinctions given immediately above, Claims 3-4 and 12-13 are patentably distinct from Unger in view of Crandall. Thus, Claims 3-4 and 12-13 are allowable.

3) Claims 7, 8, 16 and 17 are not unpatentable under 35 U.S.C. §103(a) over Unger in view of Crandall and further in view of Dietz.

Dependent Claims 7, 8, 16 and 17 were rejected in paragraph 5 of the final Office Action as unpatentable over Unger in view Crandall and further in view of Dietz.

As presented in part 1 of the argument above with respect to independent Claim 1, upon which Claims 7 and 8 depend, Unger in view of Crandall does not render

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independent Claim 1 unpatentable. Likewise, as presented in part 1 of the argument above with respect to independent Claim 11, upon which Claims 16 and 17 depend, Unger in view of Crandall does not render independent Claim 11 unpatentable. Dietz does not remedy any of the deficiencies of Unger in view of Crandall discussed in part 1 above for Claims 1 and 11.

Thus, for the reasons presented in part 1 of the argument above for Claim 1, dependent Claims 7-8 are patentably distinct from Unger in view of Crandall and further in view of Dietz. Likewise, for the reasons presented in part 1 above for Claim 11, dependent Claims 16-17 are patentably distinct from Unger in view of Crandall and further in view of Dietz. Thus, Claims 7-8 and 16-17 are allowable.

SUMMARY

For the reasons given above, each of Claims 1-21 are allowable. Allowance of Claims 1-21 is respectfully requested.

Ву:

Daniel E. Tierney Reg. No. 33,461

Attorney For Applicant

631-588-4429

Dated October 31, 2003